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CONTEMPLATING THE COUNTERFACTUAL:
MILITARY DECEPTION IN AN AGE OF PERFECT KNOWLEDGE

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

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14 June 1996

Paper directed by
CAPT George Jackson, USN
Chairman, Department of Joint Military Operations

NO FORN DISSEM

UNCLAS

Security Classification This Page

REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED	
2. Security Classification Authority: n/a	
3. Declassification/Downgrading Schedule: n/a	
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.	
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT	
6. Office Symbol: C	7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207
8. Title (Include Security Classification): CONTEMPLATING THE COUNTERFACTUAL: MILITARY DECEPTION IN AN AGE OF PERFECT KNOWLEDGE (U)	
9. Personal Authors: CDR EILEEN F. MACKRELL, USN	
10. Type of Report: FINAL	11. Date of Report: 20 MAY 1996
12. Page Count: 23	
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.	
14. Ten key words that relate to your paper: Deception; operational deception; Operation BODYGUARD; Operation FORTITUDE SOUTH; Beach Jumpers; Double Cross Network; Normandy Invasion, 1944; technology; cover, concealment and deception; counterfactual	
15. Abstract: This paper addresses the topic of military deception at the operational level, and asserts its continued utility and feasibility in an age of increasingly high-technology intelligence gathering and dissemination systems. Beginning with a consideration of the nature of deception, the paper then examines four key tenets of a successful operational deception, namely Magruder's Principle (reinforce the enemy's preconceptions), plausibility, the use of multiple channels, and the combination of secrecy, central control and coordination. For each of these tenets, historical examples of their use in military operations are discussed; the paper then considers the extent to which each of these tenets remains applicable in a high-tech world. The paper concludes with a consideration of the continued feasibility and increasing desirability of deception in the future.	

Contemplating the Counterfactual: Military Deception In An Age Of Perfect Knowledge

All warfare is based on deception.¹

-- Sun Tzu

In the millennia since Sun Tzu opined that deception lies at the heart of all warfare, generations of warriors have tested his thesis and found it valid. The edge that a successful deception plan brings to a campaign has been proven over and over, by Nelson and Napoleon, by Churchill and Hitler, by Schwarzkopf and Saddam Hussein. Deceiving your enemy as to your plans, intentions, timing, gives you just that much more advantage; and a small advantage has often turned the tide in war.

However, the accelerating pace of technology has dramatically increased the amount of information available even to the private citizen, much less to wealthy and powerful national intelligence services. It is no longer possible for large military forces to deploy without a trace. Were Halsey's task force at sea today, neither the world nor CINCPAC would be left to wonder as to its whereabouts. In an age of apparently near-perfect knowledge, is military deception still relevant? Is it indeed still possible, given the technological advances of the recent past?

This paper will examine the concept of military deception and discuss its continuing relevance and criticality in the modern age. Several key facets of a successful military deception will be examined and historical illustrations adduced; the paper will then discuss whether the same or similar results may obtain under the current technological climate.

What Is Deception?

Deception is most simply viewed as a deliberate misrepresentation of reality to gain a competitive advantage;² in more formal terms, the U.S. Army defines deception as "actions which mislead the enemy and induce him to do something counter to his interests."³ The aims of any deception operation are, first, to affect the target's beliefs; second, to influence his actions; and most importantly, to gain some advantage from so doing.⁴ The prime targets of a deception operation, then, are enemy intelligence analysts and decision-makers.⁵ Successful deception confers the advantage of *surprise* on the deceiver:⁶ the ability to act at a time and place and in a manner unforeseen by the enemy. Clearly a successful deceptive operation can offset a stronger opponent's advantage.⁷ But even a nation which far outweighs its adversary can use deception to reduce the risk or cost of a military operation -- an important factor in the current minimal-risk military climate.

In theoretical terms, deception can be viewed in two variants: **ambiguity** **deception**, which seeks to increase the ambiguity in the enemy's mind by persuading him that there are multiple plausible courses of action open to you; and **misdirection** **deception**, which seeks to reduce ambiguity in the enemy's mind "by building up the attractiveness of one wrong alternative."⁸ A successful ambiguity deception will force the enemy to disperse his forces to deal with several perceived plausible threats; a successful misdirection deception, on the other hand, will cause the enemy to concentrate his forces in the wrong place. In practice, most deception operations include elements of both ambiguity and misdirection. Results of deception are also likely to fall along the

continuum from ambiguity to misdirection, since few commanders are willing to risk everything on preparing for only one possible attack.⁹

Orchestrating a successful deceptive campaign is a difficult and costly task. The higher the stakes, the more willing a nation will be to spend the time, effort, money, and operational and deceptive resources to mount a deception campaign.¹⁰ Thus even an enemy which has shown little predilection to engage in deception is likely to resort to it in a fight for survival, a critical consideration for analysts in an escalating conflict.¹¹

While the primary focus of this paper is deception at the operational level of war, it will be apparent that operational deception tends to blur into strategic deception. Operational deception must support strategic deception and guide tactical deception; if all levels aren't telling the same story, the discrepancies will make it easy for an enemy analyst to unravel the whole. Furthermore, strategic deception affects the waters in which enemy analysts and decision-makers swim, and thus directly affects their analysis and decisions at the operational and tactical levels.¹²

The "Transparency Revolution"

Certainly the utility of deception as it has been practiced in the past is open to question in view of modern surveillance and reconnaissance capabilities. In contrast to the world in which Nelson or even Halsey operated, there are very few areas of the globe where it is possible to hide a force of any size today. Most of the planet is susceptible to overhead surveillance and electronic eavesdropping. Satellites can spot changes in facilities or force dispositions; miniature electronics and other technical advances have greatly increased the capability of ground-based covert surveillance. As Michael Dewar put it,

"Technology has turned darkness into daylight; removed the leaves from the trees and penetrated the smoke of the battlefield."¹³ And a staggering C4I architecture can disseminate the results of surveillance to the furthest-deployed forces in near real time.

Is Deception Still Feasible?

What, then, is the utility of operational deception in this age of near-perfect knowledge? To answer this question we will examine several of the essential elements of a successful deception operation, and consider the extent to which technological advances may have forestalled or obviated their attainment in any future deception attempt.

Reinforcing Preconceptions

Perhaps the most widely accepted maxim of deception is Magruder's Principle, which holds that it is easier to induce the enemy to maintain a preexisting belief than to persuade him to change it.¹⁴ The deceiver should thus seek to reinforce the enemy's preconceptions and hopes. Both analysts and decision-makers are prone to accept most readily that information which accords with what they already believe to be true, and to ignore or discount information which contradicts this view. The target of the deception thus becomes "an unwitting but cooperative victim" in his own deception.¹⁵ Stalin's steadfast refusal to believe that Hitler would attack Russia in 1941 is a classic example of Magruder's principle in operation. Stalin had become convinced that Hitler would not attack Russia in 1941, and that he would not attack in any event without first presenting a series of demands. These firm preconceptions, based largely on Stalin's reading of Hitler's behavior to date, allowed Stalin to accept the steady German force buildup in

eastern Europe as preparations for intervention in the Balkans and the invasion of England. The German attack against Russia achieved near-complete surprise.¹⁶

In similar fashion Saddam Hussein cooperated in his own deception during Desert Storm. The Iraqi Army considered the desert west of Kuwait to be difficult terrain, impassable to armor, a preconception both dangerous and false. Saddam meanwhile expected a straightforward frontal assault with concomitant high casualties, which would erode public support for the war in the United States; and he was confident the U.S. would not allow Iraq to be invaded for fear of fracturing the allied coalition. The Allies played to Saddam's preconceptions and hopes, tying up large numbers of Iraqi forces to oppose the expected frontal assault while Allied forces swung west and north into Iraq.¹⁷

An important subset of reinforcing the enemy's preconceptions is the notion of conditioning those preconceptions prior to the attack. Egypt used this tactic to stunning effect in the 1973 Yom Kippur War. Between January and October 1973, Egypt had mobilized and demobilized its reservists twenty-two times; bridging equipment had been brought to the Suez Canal and taken away again several times; and it was time for the annual Egyptian fall exercise. All these preparations conditioned the Israelis to expect more of the same. They also played into the Israeli preconceptions of a weak and unready Arab force, unable to attack without air superiority, and fed Israeli hopes that no further Israeli mobilizations would be necessary. The Israelis saw what they *expected* and *hoped* to see: one more Egyptian exercise.¹⁸ The Egyptian attack achieved total surprise.

Is it still possible to reinforce an enemy's preconceptions as part of a deceptive campaign? The Allied experience in Desert Storm suggest that it is. In the first place, the

technological improvements to intelligence collection capabilities make it easier to form an accurate picture of the enemy's preconceptions, hopes and fears. Analysis of how the enemy uses his forces, gained through technical surveillance; accounts of speeches and policy statements obtained through open source material; COMINT; even email conversations with target country residents can assist in limning the enemy's ideas about how friendly forces will and will not act.¹⁹

Furthermore, while there is undoubtedly more information on friendly forces and capabilities available to the enemy through improved technology, the analysis and interpretation of the data remains a thorny problem, made more and not less difficult by the explosion of data. A data-rich environment leaves many more possibilities open for the analyst and decision-maker to consider.

A particularly important point in this regard concerns the limits on human informational processing described by what the CIA calls "the law of small numbers."²⁰ This maxim refers to the predisposition of an observer to draw conclusions based on only a few events.²¹ The observer will generally hold to his theory so long as the evidence which contradicts it merely trickles in in very small increments, even when the aggregate change is quite large, since no individual change appeared to be a noteworthy alteration of the status quo. This "creeping normalcy" can cause an analyst to miss significant changes in enemy movements or dispositions over time.

As an added complicator, the sheer volume of available data (whatever its source) requires a sizable body of analysts just to sort through it; without sophisticated automated information processing tools, the effort is daunting indeed. The size and scope of the task

suggest that nations which can afford large, technically capable intelligence organizations will hold an advantage over those which cannot.

Plausibility

The second critical factor in a successful deception is plausibility. A convincing deceptive scheme must fit what the enemy would realistically expect you to do.

The plausibility of a deceptive scheme can be its most persuasive point. The German offensive in the Ardennes in 1944 relied on convincing the Allies that the German buildup in the west was a defensive disposition ("Wacht am Rhein") intended to protect the vital Ruhr valley. Such a defense was precisely what Allied planners believed to be the Germans' best course of action given the strategic situation.²²

Clearly, the strategic and operational situation will limit the options that can be presented as plausible deceptive plans, as will any known shortfalls in friendly capabilities. Of course, as Michael Handel points out, "What is or is not possible matters less than what the enemy believes possible."²³ The cover plan for Operation HUSKY, the Allied landings in Sicily, illustrates this point. The deceptive plan postulated threats of Allied landings in Sardinia and the Balkans as well as Sicily. This highly complex and well-orchestrated deception plan included diversionary movements of a British task force to the vicinity of Crete, special forces activity in Greece, Greek interpreters joining battalions of the Sicily expeditionary force, and even the famous "man who never was," the corpse which washed ashore with deceptive papers purportedly revealing the upcoming invasion of Sardinia.²⁴ The Germans considered this a plausible threat, and deployed forces to defend all the supposed invasion sites. In point of fact, the Allies lacked the landing craft

to mount simultaneous landings in Sardinia, Sicily and the Balkans. This deception plan was not in fact plausible. However, the Allied planners had over time built up a purely notional order of battle which included ample landing craft, and passed it to the Germans; the Germans accepted this notional OOB as fact, and thus considered the simultaneous landings plausible.²⁵



Fig. 1. PSYOPS leaflet depicting USMC amphibious assault while Iraqi defenders flee.²⁶

In more recent times, the coalition deceptive plan used in Desert Storm clearly shows the continuing utility of presenting a plausible but false course of action. The expected frontal attack into Kuwait backed by an amphibious assault was well within the capabilities of the coalition forces, and moreover matched the level of coalition commitment to the goal of ousting Iraqi forces from Kuwait. In fact the amphibious assault was seriously considered as a potential course of action, and became instead part of the deception plan. While ground forces conducted extensive reconnaissance of the Wadi al Batin, preparing the Iraqis to believe that the wadi would be the route of the main ground attack, amphibious forces set busily about the details of preparations for an

amphibious assault, conducting rehearsals, clearing assault lanes, and clearing mines.²⁷

PSYOPS units prepared thousands of leaflets (shown in Fig. 1, above) depicting a Marine amphibious assault against Iraqi forces, and set them adrift in bottles to wash ashore in Kuwait.²⁸ And the media eagerly covered the amphibious exercises, performing a valuable though unwitting role in reinforcing the deceptive scheme.

Multi-Channel Deception

A third key factor in deception, rejoicing in the sobriquet of Jones's Lemma, holds that the more channels of information are available to the enemy, the harder your deception effort will be; BUT the greater the number of those channels that you control, the likelier your enemy is to believe the deception.²⁹ Enemy analysts will seek to confirm information received through one channel via several others; the more of these channels you can use to pass pieces of your deceptive scheme, the more likely the pieces will coalesce in the enemy's mind in the form you intend.

The European theater saw two spectacular examples of multi-channel deception during WWII: the U.S. Navy's "Beach Jumpers," which conducted tactical deception in support of amphibious landings in the Mediterranean, and at the theater-operational level, Operation Fortitude South, the complex cover plan for the Normandy invasion.

The Beach Jumpers' tactical role in the cover plan for the invasion of Sicily took place shortly before the actual landings, and involved persuading the Germans that an amphibious landing was about to occur in western Sicily, thus drawing troops away from the actual invasion beaches to the east.³⁰ Beach Jumper units made diversionary nighttime attack runs against western Sicily in small boats, employing a wide variety of deceptive

measures. The boats streamed radar-reflecting balloons; they fired beach barrage rockets, guns and pyrotechnic devices; they jammed German radars and broadcast deceptive communications simulating amphibious command ships directing their landing craft; they projected the recorded sounds of an amphibious force offshore, complete with "clanking anchor cables, landing craft engine noises, and creaking tank tracks" to convince defenders ashore that an invasion was underway.³¹ The deception was a convincing one. The Germans responded to the threat, defending vigorously against the imaginary force; prisoners later told Allied captors that they believed they had repelled a landing attempt in the west of Sicily. And a German reserve division was held in place, its general unsure of where to commit his troops due to the naval diversions.

On a much grander scale, the Allies concocted a highly elaborate deception plan to provide cover for the June 1944 cross-Channel landings in Normandy. The overall deception plan, Operation Bodyguard, was a large-scale piece of ambiguity-deception, intended to postulate convincing threats against northern and southern Europe as well as France. As a subset of Bodyguard, Operation Fortitude South ran as a misdirection-deception, whose thesis was that the main landing would take place against the Pas de Calais, and any landing in Normandy would be a diversion only.³²

As an example of meticulously planned and executed multi-channel operational deception, Fortitude South is unsurpassed. The Allied deception team invented an entire nonexistent group--the First US Army Group, or FUSAG--as the centerpiece of the Calais landings. A staggering array of reinforcing details were brought into play: dummy tanks, aircraft, paratroops and landing craft for the mythical FUSAG; deceptive lighting,

communications, sonic devices; strategic bombing of the Pas de Calais beaches and German communications sites in the area.³³ Virtually every channel which could transmit information to the German high command concerning the impending invasion was used to pass details of the deception plan.

The success of Fortitude South (or of any other deceptive plan) had much to do with the meticulous analysis of enemy intelligence which preceded it. Allied analysts accurately assessed not only the channels of information open to the enemy, but also which channels would likely receive the greatest consideration, which could best be exploited, which were better shut down altogether. The engineers of the deceptive plan understood not only how the German intelligence network operated but also how German commanders *used* intelligence.

An interesting contrast is afforded by the war in the Pacific, where Japanese strategic intelligence performed poorly and Japanese commanders were remarkably uninterested in receiving or acting on intelligence reports. Handel points out, "At times, the Japanese High Command seemed to plan its strategy and troop dispositions on the basis of its own autonomous judgment, evincing a disregard for intelligence which ironically rendered it immune to deception."³⁴ This attitude of the Japanese High Command had as much to do with the absence of large-scale deception in the Pacific War as did the more obvious theater geography and distance factors.

In planning a deceptive scheme, then, it is important to understand just how good the enemy intelligence system is. An overly complex deception plan may never be

received by the enemy at all; deceptive messages may be "lost in the noise," or misinterpreted, or the enemy may simply never notice them.

Fortitude South illustrates another aspect of using multiple channels to pass a deceptive plan, namely the requirement to *manage* the enemy's intelligence channels. The Allies shut down some German intelligence gathering channels almost completely, such as aerial reconnaissance past the coastal regions of the UK. Other channels were allowed to remain functional to ensure transmission of the deception. Most importantly, certain channels were coopted completely and used to Allied advantage. The British Double Cross network successfully identified and turned German agents in England, and used them to pass the Fortitude deception plan to the Germans.³⁵

The Allies enjoyed an important advantage in the conduct of Fortitude South, for they had broken the Enigma cipher machine and could read most German communications. This gave them a reliable method of obtaining accurate feedback on how the deception was being received and the extent to which the German high command believed it.³⁶ While a window into the enemy's councils on the scale of the Enigma device may not always be attainable, the existence of a method of feedback is a vital consideration in deception planning.

What of multi-channel deception in the high-tech age? Obviously the technological revolution has had a profound impact on the channels through which intelligence is gathered. There are more channels to use, more sensors capable of detecting various aspects of enemy activity. More data can be acquired, transmitted, manipulated. Moreover, the same technology which allows hard intelligence data to bounce rapidly

from sensor to shooter has facilitated an explosion of open-source data available to any interested parties. The implications for intelligence analysts, of course, have been clear for some time: More data requires faster, more capable means of sorting and analyzing it and better, wider pipes for moving it around; and the sheer volume of data makes the "so what" factor ever more critical. Deception planners face the same problems from both sides. On the one hand, the multiplication of channels means there are more ways to pass false data to the enemy. More data means greater ambiguity; enemy analysts have more difficulty weeding through the noise to arrive at their own "so what" factor. At the same time, more channels means more possible ways for enemy analysts to seek confirmation of the deceptive data they receive. Had Saddam Hussein, for example, had access to daily overhead imagery of northern Saudi Arabia, the coalition deception plan would almost certainly have failed. Furthermore, the increase in ambiguity caused by greatly increasing the data load may well result in enemy analysts misinterpreting deceptive signals or missing them altogether. Perhaps most importantly, the existence of a wide variety of potential channels for deception means any deception plan will require extremely close coordination to ensure the same story is being passed through all channels.

The Admin Side: Secrecy, Control, Coordination

This brings us to the fourth major element of successful deception, which is concerned with *how* the deception is orchestrated: Secrecy, central control, and close coordination with operational planners are absolutely required.

Of these three, secrecy is perhaps the most obvious. A deception effort must have tight security and secrecy to succeed. At the operational level, a deception effort is likely

to be carried on for an extended time, making secrecy both more important and more difficult.³⁷ Usually this will mean deceiving not only the enemy but one's own troops as well, since the number of people conversant with the details and even the existence of the deceptive plan must necessarily be very small. Plans for the deception will usually travel outside standard channels so as to limit disclosure to one's own forces and reduce the risk of enemy intercept. Thus the German plans for the Ardennes offensive and the deception plan covering it were never transmitted but were carried by courier; the Allies, relying upon ULTRA for their window into the German High Command, had no notion of the upcoming attack.³⁸

Central control is a closely allied notion: in order for all parts of a deceptive scheme to agree, one central agency or group must be in overall control of every aspect. As military historian R. F. Hesketh put it, "Control of a deceptive operation must be decided upon the self-evident principle that no two people can safely tell the same lie to the same person except by closely concerted action."³⁹ Typically, the highest headquarters controlling operational forces which directly benefit from the deception should be the central control point.⁴⁰ London Controlling Section served as the overall control for all the Allied deceptive efforts in the European Theater of Operations; a major part of their job was to ensure that all parts of the various deceptive schemes used in theater presented a coherent and consistent strategic and operational picture when taken together.

Coordination is a more elusive target. Ideally the deception plan should be prepared along with the campaign plan, in close coordination with operations planners, and should involve the entire force: the movements and dispositions of the force at any

given point should support not only the actual campaign plan but also the deceptive cover story. If the deception scenario is successfully meshed with the campaign plan, the enemy will be able to verify parts of the deception plan as it unfolds -- since it will in fact be taking place, as part of the campaign plan -- and he will be more likely to accept the entire plan, including the deceptive portions.⁴¹ The Russian deception to cover the Belorussian offensive was a masterpiece of such coordination between ops planners and the deception cell. The Russians created a huge dummy army in southern Russia, with fake tanks, artillery pieces, aircraft, supply depots, field fortifications and radio nets; real bombers were moved south, real anti-aircraft zones were established in the south. Meanwhile the true buildup for the offensive on the Belorussian front was tightly hidden under strict radio silence, movement at night, and camouflage.⁴² Unquestionably the huge deceptive effort was a strain on Russian operational forces. However, they were also its immediate beneficiaries.

What effect has burgeoning technology had on planners' ability to maintain secrecy, hold plans under central control and conduct close coordination? For one thing, all three are more critical than ever. Improved means of surveillance and technologically advanced tools of espionage, to say nothing of an increasingly aggressive press corps, mandate correspondingly tight security for a deceptive plan; however, the Gulf War suggests that such secrecy remains within the realm of the possible.

Central control of a deception plan is hardly in question in a high-tech force; indeed the deception plan may well be controlled at the national vice operational level, to ensure deconfliction in tasking of national assets and programs.

Coordination remains a key issue. On the one hand, the force drawdown has left commanders with fewer resources, and possibly increased their reluctance to spend any of them in such seemingly peripheral ways as deception operations. However, with fewer resources, it becomes more critical to seek every advantage, to make the optimum use of every resource: deception can provide a significant operational advantage. Since it acts as a force multiplier, foregoing deception means undermining one's own strength.⁴³ As Michael Dewar suggests, "In an increasingly resource driven world, the economics of deception become progressively more attractive....any means by which strength can be simulated or intentions masked, must be cost effective."⁴⁴ And, of course, with fewer forces on the friendly side and higher tech on the enemy's side, it is more important for the deception planners to closely mesh their deception scheme with the actual movements of the operational forces, since there will likely be fewer friendly forces available to carry out purely deceptive movements (feints, etc.) and the enemy will presumably be able to discern friendly force movements to some extent.

Even occasional leaks of the truth may not be disastrous to a deception plan. It is difficult for most potential enemies to accept the independence of the western media; a media leak of the truth may well meet with suspicion and disbelief on the enemy's part. Even an inadvertent disclosure of the truth by someone conversant with the deception scheme may be considered a deceptive ploy by enemy analysts, all the more so if it contradicts a plausible and well-supported deceptive story.⁴⁵

Conclusion: Now More Than Ever

From the foregoing it is apparent that it is still possible in an advanced-technology environment to conduct a successful deception campaign. Is it still worth doing? Is it still a good idea?

It is more important now than at any time in the past.

Deception in a high-tech age--an age of "near complete visibility,"⁴⁶ as Dewar puts it--assumes an importance it did not have when it was possible to hide attack preparations from an enemy over the horizon or behind walls. Deception as to friendly intentions and plans is critical to achieve surprise. The enemy may have a good idea of what you are doing; a strong deception plan can prevent him from reaching an accurate assessment of what it *means*--the "so what" factor.

By increasing ambiguity for enemy analysts and decision-makers, deception may well cause them to delay taking action, waiting to get a better picture of the situation. In a high-tempo, high-tech conflict, even a brief delay could be critical. In fact, as MAJ Charles Burgdorf suggests, "The combined effect of tempo and technology on the conduct of deception might just negate the advances that technology has made in the detection of deception."⁴⁷

Clearly successful deception requires a greater degree of technological sophistication than in the past. It will also likely require a closer melding of the national/strategic and operational levels of war than in the past, since much of a deception plan will likely depend on national assets. And most importantly, as Daniel points out, it will require skill in "contemplating the counterfactual,"⁴⁸ of thinking deceptively, a skill which does not abound in wasteful profusion in American military circles.

So far from fading in the glow of high-tech, deception will assume even greater importance in future wars. At whatever levels of technological sophistication it may assume, deception will continue to be an integral part of warfare.⁴⁹

- ¹ Sun Tzu, The Art of War, translated by Samuel B. Griffith (New York: Oxford University Press, 1982), 66.
- ² Donald C. Daniel, ed., Strategic Military Deception (New York: Pergamon Press, 1982), 3.
- ³ U.S. Army Field Manual 100-5-1, Operational Terms and Symbols (Washington: HQDA, 1985), 36.
- ⁴ Daniel, Strategic Military Deception, 3.
- ⁵ Cathy Darlene Walters, "Perceptions Management: Soviet Deception and Its Implications For National Security" (Thesis, Naval Postgraduate School, Monterey, CA: 1988), 12.
- ⁶ Michael Handel, ed., Strategic and Operational Deception in the Second World War (London: Frank Cass, 1987), 1.
- ⁷ James R. Peterson, "Tactical Deception: Vital Then, Vital Now" (Research Report, Air Command And Staff College, Maxwell AFB AL: 1985), 3.
- ⁸ Daniel, Strategic Military Deception, 6.
- ⁹ Ibid., 7.
- ¹⁰ Handel, Strategic and Operational Deception, 31.
- ¹¹ Deception Research Program, Office of Research and Development, Central Intelligence Agency, Deception Maxims: Fact and Folklore (Washington: Central Intelligence Agency, 1980), 45.
- ¹² This point is elaborated further in Walters, "Perceptions Management," 12-13, where she discusses the extent to which analysts and decision-makers influence each other's view of the enemy.
- ¹³ Michael Dewar, The Art of Deception in Warfare (Newton Abbot: David and Charles, 1989), 20.
- ¹⁴ CIA, Deception Maxims, 5.
- ¹⁵ Daniel, Strategic Military Deception, 21.
- ¹⁶ Douglas V. Smith, Military Deception and Operational Art (Research Report, U.S. Naval War College, Newport, RI: 1993), 5.
- ¹⁷ Smith, Military Deception, 12.
- ¹⁸ Charles E. Burgdorf, "An Appreciation for Vulnerability to Deception at the Operational Level" (School of Advanced Military Studies Monograph, USACGSC, Fort Leavenworth, KS: 1987), 18.
- ¹⁹ Daniel, Strategic Military Deception, 22.
- ²⁰ CIA, Deception Maxims, 11.
- ²¹ Ibid.
- ²² Michael D. Starry, "Deception and the Operational Level Of War" (School of Advanced Military Studies Monograph, USACGSC, Fort Leavenworth, KS: 1986), 10.
- ²³ Handel, Strategic and Operational Deception, 1.
- ²⁴ Starry, "Deception and the Operational Level Of War," 7.
- ²⁵ Handel, Strategic and Operational Deception, 73.
- ²⁶ 4th Psychological Operations Group, Leaflets of the Persian Gulf War (Fort Bragg: 4th POG, date unknown [c. 1992]), 18.
- ²⁷ Smith, Military Deception, 12-14.
- ²⁸ 4th POG, Leaflets of the Persian Gulf War, 18.
- ²⁹ CIA, Deception Maxims, 20-21.
- ³⁰ John B. Dwyer, Seaborne Deception: The History of the U.S. Navy Beach Jumpers (New York: Praeger, 1992), 26.
- ³¹ Dwyer, Seaborne Deception, 16.
- ³² Smith, Military Deception, 7.
- ³³ Ibid., 9.
- ³⁴ Handel, Strategic and Operational Deception, 52.
- ³⁵ Smith, Military Deception, 7.
- ³⁶ CIA, Deception Maxims, 34.
- ³⁷ Starry, "Deception and the Operational Level Of War," 25.

³⁸ Burgdorf, "Vulnerability to Deception," 11.

³⁹ R.F. Hesketh, "Fortitude: A History of Strategic Deception in North Western Europe April, 1943 to May, 1945," unpublished history of deception operations in northwest Europe (1949), 174: quoted in Handel, Strategic and Operational Deception, 21.

⁴⁰ Daniel, Strategic Military Deception, 16.

⁴¹ Ibid., 19.

⁴² Starry, "Deception and the Operational Level Of War," 13.

⁴³ Handel, Strategic and Operational Deception, 40.

⁴⁴ Dewar, The Art of Deception in Warfare, 7.

⁴⁵ Starry, "Deception and the Operational Level Of War," 26.

⁴⁶ Dewar, The Art of Deception in Warfare, 20.

⁴⁷ Burgdorf, "Vulnerability to Deception," 26.

⁴⁸ Daniel, Strategic Military Deception, 168.

⁴⁹ Handel, Strategic and Operational Deception, 35.

SELECTED BIBLIOGRAPHY

- 4th Psychological Operations Group. Leaflets of the Persian Gulf War. Fort Bragg: 4th POG, date unknown (c. 1992).
- Brown, CDR R. A., and Dr. Robert J. Schneller. United States Naval Forces in Desert Shield and Desert Storm: A Select Bibliography. Washington: Naval Historical Center, 1993.
- Browne, Joseph E. "Deception and the Mediterranean Campaigns of 1943-44." Student Paper, U.S. Army War College, Carlisle Barracks, PA: 1986.
- Burgdorf, MAJ Charles E. "An Appreciation for Vulnerability to Deception at the Operational Level." School of Advanced Military Studies Monograph, USACGSC, Fort Leavenworth, KS: 1987.
- Clark, MAJ Robert L., IV. "The Essential Elements of Operational Surprise." School of Advanced Military Studies Monograph, USACGSC, Fort Leavenworth, KS: 1987.
- Daniel, Donald C., and Katherine L. Herbig, eds. Strategic Military Deception. New York: Pergamon Press, 1982.
- Deception Research Program, Office of Research and Development, Central Intelligence Agency. Deception Maxims: Fact and Folklore. Washington: Central Intelligence Agency, 1980.
- Dewar, Michael. The Art of Deception in Warfare. Newton Abbot: David and Charles, 1989.
- Dwyer, John B. Seaborne Deception: The History of the U.S. Navy Beach Jumpers. New York: Praeger, 1992.
- Elder, MAJ James E. "The Operational Implications of Deception at the Battle of Kursk." School of Advanced Military Studies Monograph, USACGSC, Fort Leavenworth, KS: 1989.
- Handel, Michael I., ed. Strategic and Operational Deception in the Second World War. London: Frank Cass & Co. Ltd, 1987.
- Howard, Michael. Strategic Deception in the Second World War. New York: Norton, 1990.

- Peterson, MAJ James R. "Tactical Deception: Vital Then, Vital Now." Research Report. Air Command And Staff College, Maxwell AFB AL: 1985.
- Quilter, COL Charles J., II. With The I Marine Expeditionary Force In Desert Shield and Desert Storm. Washington DC: History and Museums Division, Headquarters, U.S. Marine Corps, 1993.
- Smith, CDR Douglas V. Military Deception and Operational Art. Research Report, U.S. Naval War College, Newport, RI: 1993.
- Special Studies Division, Air Force Intelligence Service. Foreign Denial and Deception (D&D): Soviet Maskirovka: A Bibliography. Washington: Air Force Intelligence Service, 1986.
- Starry, MAJ Michael D. "Deception and the Operational Level Of War." School of Advanced Military Studies Monograph, USACGSC, Fort Leavenworth, KS: 1986.
- Sun Tzu. The Art of War. Translated by Samuel B. Griffith. New York: Oxford University Press, 1982.
- U.S. Army Field Manual 100-5-1, Operational Terms and Symbols. Washington: HQDA, 1985.
- Walters, Cathy Darlene. "Perceptions Management: Soviet Deception and Its Implications For National Security." Thesis, Naval Postgraduate School, Monterey, CA: 1988.